

REMARKS

Claim 1 calls for monitoring a temperature of a cache memory and, in response to the detection of a temperature condition, transitioning the cache memory from a write-back cache to a write-through cache. A reference to Watanabe is cited. However, in Watanabe, the cache never transitions from a write-back to a write-through or vice versa. All that happens in response to the detection of a high temperature is that either (1) the cache is not used and everything is written directly to the optical memory or (2) the cache is not used and everything in the write cache is written to the optical memory.

The point of the Watanabe reference is that Watanabe realized that certain high temperature conditions caused the optical memory to be turned off. Then, data that was stored in the write cache for subsequent transfer to the optical memory became lost. Thus, what he did was to detect a temperature before the optical memory would be turned off and, when he saw that situation, he transferred the data from the cache memory to the optical memory to prevent data loss.

But nothing about any of this has anything to do with transitioning between a write-through and a write-back cache. All that happens is the cache is used or the cache is not used. Essentially, it appears that whenever the cache is used it would possibly be called a write-back cache because data is written to the cache, acknowledged to the host, and then, thereafter, written to the optical memory, but the classification is either write-back or write-through and does not seem to make any difference since there is no transition.

Thus, referring to Figure 3, if a write cache is supposed to be used, as determined in S3, a check determines whether the temperature is over VI°C in S4. If not, the step of forbidding the use of the write cache is avoided and the data is written to the cache and to the optical memory as indicated with respect to the optical recording medium in S6.

If the temperature is over VI°C, indicating the possibility of a shutdown of the optical recording medium, the write cache is no longer used as indicated in S9. This is to prevent data from getting lost on the write cache if the temperature eventually becomes high enough to shutdown the optical recording medium.

Then, a check at S7 determines whether the temperature is over VIII°C. If not, the data is written to the optical recording medium, again, not using the cache memory because it was already shutdown in S9.

If the temperature is over VIII°C, then, not only is the write cache not used, but everything that is in the write cache is dumped to the optical recording medium to prevent it from being stranded in the cache when the optical recording medium is turned off.

Thus, there is no transition between write-back and write-through of the cache. The cache is either used or it is not used. It is used in the same way in either case. When the temperature is particularly high, whatever is in the cache is simply dumped to the optical recording medium.

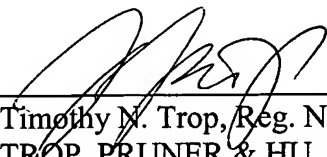
Therefore, reconsideration of the rejection of claim 1 is respectfully requested.

On the same basis, reconsideration of the claims dependent on claim 1 and claim 13 and its dependent claims are respectfully requested. Reconsideration of the rejection of claim 26 and its dependent claims is requested on the same grounds. Similarly, claim 35 and its dependent claims should be in condition for allowance.

The new claims are allowable *inter alia* because Watanabe does not change operating modes of the cache. The cache is either operating or not operating. The cache does not transition between two operating modes.

Respectfully submitted,

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